

Listing of Claims:

1. (Currently Amended) A microscopic image capture apparatus, comprising:

a low magnification optical system and a high magnification optical system;

5 a macro image capture unit which captures an image of wide-angle view of an entire observing slide by the low magnification optical system;

10 a sample image area extraction unit which extracts a sample image area ~~including~~ in which a sample image exists from the image of wide-angle view captured by the macro image capture unit;

15 a height coordinate acquisition position setting unit which automatically sets a plurality of positions in an XY direction ~~in which a height coordinate Z is acquired from~~ over the sample image area extracted by said sample image area extraction unit in each of which a height coordinate Z is acquired;

a replacing unit which replaces the low magnification optical system with the high magnification optical system;

20 a coordinate read unit which reads a height coordinate of a focal point position of the high magnification optical system in each of the positions in the XY direction set by said height coordinate acquisition position setting unit;

25 a focal point adjusted position computation unit which
computes an adjusted position of a focal point in an arbitrary
position in the sample image area using height coordinate data
read by said coordinate read unit over the sample image area ~~at~~
~~the positions set by said height coordinate acquisition position~~
~~setting unit; and~~

30 a sample travel unit which transfers a height of a sample to
the adjusted focal position computed by the focal point adjusted
position computation unit ~~when~~ following horizontal traverse of
the sample ~~is horizontally traveled.~~

2. (Previously Presented) The apparatus according to
claim 1, wherein said coordinate read unit performs autofocus
processing with the sample horizontally traveled to a set
position, and reads a height position of said sample travel unit
5 after completion of the autofocus processing as the height
coordinate.

3. (Previously Presented) The apparatus according to
claim 1, wherein said height coordinate acquisition position
setting unit sets a position of a grid point including the sample
image in grid points of sections obtained by dividing the sample
5 image area at predetermined intervals in grid form as one of the
positions in which the height coordinate is obtained.

Claims 4-8 (Canceled).

9. (Currently Amended) A microscopic image capturing method for use with a microscopic image capture apparatus, said method comprising:

capturing an image of a wide-angle view of an entire
5 observing slide by a low magnification optical system;

extracting a sample image area ~~including~~ in which a sample image exists from the captured image of wide-angle view;

automatically setting a plurality of horizontal positions ~~in which a height coordinate Z is acquired from~~ over the extracted
10 sample image area in each of which a height coordinate Z is acquired;

replacing the low magnification optical system with a high magnification optical system;

reading a height coordinate which is a focal point position
15 of the high magnification optical system in each of the set horizontal positions;

computing an adjusted position of a focal point in an arbitrary position in the sample image area using the set horizontal positions and height coordinate data read ~~[[in]]~~ over
20 the ~~set horizontal positions~~ sample image area; and

transferring a height of a sample to the computed adjusted focal position ~~when~~ following horizontal traverse of the sample ~~is horizontally traveled.~~

Claims 10 and 11 (Canceled).